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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,926	07/29/2005	Walter H. Hsu	08411-041US1	4316

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EXAMINER

SWARTZ, RODNEY P

ART UNIT	PAPER NUMBER
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1645

MAIL DATE	DELIVERY MODE
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08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/509,926

Applicant(s)

HSU ET AL.

Examiner

Rodney P. Swartz, Ph.D.

Art Unit

1645

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 June 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 34-60.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

DETAILED ACTION

1. Applicants' Response to Final Office Action, received 14 June 2007, is acknowledged.

Claims 53 and 57 have been amended.

2. Claims 34-60 are pending and under consideration.

Rejections Withdrawn

3. The rejection of claim 35 under 35 U.S.C. 112, second paragraph, as being indefinite, is withdrawn.

4. The rejection of claim 42 under 35 U.S.C. 112, second paragraph, as being indefinite, is withdrawn.

5. The rejection of claims 34-60 under 35 U.S.C. 112, second paragraph, as being indefinite, is withdrawn.

Rejections Maintained

6. The rejection of claims 34-52 under 35 U.S.C. 102(b) as being anticipated by Faulds (U.S. Pat. No. 5,240,706), is maintained for reasons of record.

Applicants argue that the cited reference does not teach that any of the disclosed polypeptides necessarily have the ability to increase calcium release from porcine ciliated tracheal cells and that the Example 1 provides no information about the pathogenic nature of the *M. hyopneumoniae* utilized.

The examiner has considered applicants' arguments, but does not find them persuasive. The claims are drawn to a product, i.e., a substantially pure mycoplasma polypeptide of a pathogenic *M. hyopneumoniae*, antibodies which are capable of binding to said polypeptide, method for inducing an immune response in a mammal by administration of said polypeptide, and a method of binding an antibody to said polypeptide. The physical characteristics of said

Art Unit: 1645

polypeptide is that it be between 10-80 kDa. An activity of said polypeptide is that it increase calcium release from porcine ciliated tracheal cells.

As recited in the original rejection, Faulds teaches polypeptides from the membrane of a pathogenic *M. hyopneumoniae* which have the physical characteristics of molecular weights between 10-80 kDa (Example 1). These polypeptides induce an immune response in an animal (Example 2, Antiserum; Example 6, vaccines), and bind to antibody in an antibody binding method (Example 2). While Faulds does not teach the calcium release activity of the instant claims, because the polypeptides are purified from the membrane of a pathogenic *M. hyopneumoniae*, and satisfy the molecular weight characteristics, immune response characteristics, the ability to alter calcium release in porcine ciliated tracheal cells is an inherent activity, in the absence of evidence to the contrary.

7. The rejection of claims 53-60 under 35 U.S.C. 112, first paragraph, scope of enablement for utilizing any/all types of cells, is maintained for reasons of record.

Applicants argue that the amendment of the claims obviates the rejection.

The examiner has considered applicants' argument, but does not find it persuasive. As newly amended, the claims remain directed to identifying inhibitors of mycoplasma induced calcium release from any/all types of cells by identifying an inhibitor utilizing one very specific type of cell, i.e., porcine ciliated tracheal cell. The specification does not state that this one type of cell, i.e., porcine ciliated tracheal cell, is representative of all other types of cells no matter what origin or type.

Conclusion

8. Claims 34-60 remain rejected.


Art Unit: 1645

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rodney P. Swartz, Ph.D., Art Unit 1645, whose telephone number is (571) 272-0865. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 7:30 PM EST.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Jeffrey Siew, can be reached on (571)272-0787.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RODNEY P. SWARTZ, PH.D.
PRIMARY EXAMINER
Art Unit 1645

August 5, 2007